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ABSTRACT

To test whether or not the factor structure of the Adaptive Behavior Scale (Part I) (ABS) differs when community-based mentally retarded subjects are used rather than institutionalized retarded subjects, the ABS was administered to 100 mentally retarded adults living at home and being served by community daytreatment programs. A principle components analysis with orthogonal rotation of the ABS data yielded three meaningful factors: Community Independence (accounting for 78.2% of the variance), Personal Independence (13.4%), and Vocational-Social Independence (8.4%). Previous research on institutionalized Ss had indicated that the primary factor contained in the ABS was one dealing with personal health, grooming, and basic self-care skills. The present study indicates that community awareness and mobility are of more importance to community-based retarded adults than are personal self-care skills. Implications of the present study for community-based day-treatment programs for mentally retarded adults suggest the need to focus on community awareness activities rather than on basic self-care skills for mentally retarded adult clients. (Author/CL)

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FACTOR ANALYTIC STRUCTURE OF THE ADAPTIVE BEHAVIOR SCALE (PART I) USING COMMUNITY-BASED SUBJECTS: IMPLICATIONS FOR PROGRAM DEVELOPMENT

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ABSTRACT

To test whether or not the factor structure of the Adaptive Behavior Scale (Part I) (ABS) differs when community-based mentally retarded subjects are used rather than institutionalized retarded subjects, the ABS was administered to 100 mentally retarded adults living at home and being served by community day-treatment programs.

A principal components analysis with orthogonal rotation of the ABS data yielded three meaningful factors: Community Independence (accounting for 78.2 percent of the variance), Personal Independence (13.4 percent), and Vocational-social Independence (8.4 percent). Previous research on institutionalized subjects had indicated that the primary factor contained in the ABS was one dealing with personal health, grooming, and basic self-care skills. The present study indicates that community awareness and mobility are of more importance to community-based retarded adults than are personal self-care skills.

Implications of the present study for community-based day-treatment programs for mentally retarded adults would be in the area of the programs' focusing on community awareness activities rather than on basic self-care skills for their mentally retarded adult clients.

In the past two decades, there has been an increasing shift toward providing care and training for mentally retarded individuals in their home communities rather than in large centralized institutions. Despite this shift and the proliferation of training programs and supervised residential facilities to provide such community-based treatment, little empirical research defining the characteristics of retarded individuals within a community or the types of programs which should be developed to meet their needs has been carried out (Zigler and Balla, 1977).

In 1961, Zigler proposed that there were not inherent differences in the realms of autonomy and perseverance between institutionalized and community-based retarded individuals. He felt that the observed differences in the two groups were a result of the social isolation experienced by the institutionalized individuals. In a further study, Zigler and Balla (1972) found that institutionalized retarded children who remained in contact with their parents or parent-figures were more likely to exhibit autonomous behaviors than were children who remained unsupported by community ties at the institution. Zigler and Balla (1972) further stated that their study provided clear empirical evidence that community contacts promote independence and resulting psychological growth in institutionalized retarded individuals. These findings would lead to a supposition that retarded individuals living within a community and served by day-treatment programs would, at least within the dependence-independence realm, possess different characterisitics than institutionalized retarded individuals.

Since Heber (1959) introduced the concept of adaptive behavior in the American Association on Mental Deficiency Manual on Terminology and Classification in Mental Retardation, there has been a plethora of research dealing with this concept and with various tests which purport to measure it. The present study directs its focus to one of these instruments, the Adaptive Behavior Scale (Part I) (ABS) in an attempt to study the factorial composition of the ABS using community-based retarded adults currently being served by a day-treatment program within the community. Nihira (1976) has identified three factors which make up Part I of the ABS: Personal Self-sufficiency, Community Self-sufficiency, and Personal-social Responsibility. However, since Nihira's findings were based on data collected on institutionalized mentally retarded subjects, the present study was undertaken to explore whether or not the factor structure of the ABS differs when community-based mentally retarded adults are used as the sample.

METHOD

Subjects

The subjects used in this study were 100 adult retarded individuals over age 18 living within the community with their parents or guardians. The sample was approximately evenly divided into metropolitan, small town, and rural residents. Socioeconomic status of the sample represented a spread from indigent to upper middle class. The sample was comprised of 60 males and 40 females, and their levels of retardation, as defined by IQ scores

on the Wechsler Adult Intelligence Scale, were mild (12), moderate (51), severe (23), and profound (14). All of the subjects were enrolled in a community day-treatment program in Alabama, and the IQ levels were obtained from center records.

Procedure

Each subject was administered the Adaptive Behavior Scale (Part I) by the day-treatment program coordinator. The decision to use the coordinators of the day-treatment programs as data initiators was made because they were in day-to-day contact with the subjects and had intimate knowledge of the subjects' capabilities. The ABS was then scored by the present study's author according to scoring procedures found in the ABS test manual.

RESULTS

The factorial composition of the ABS (Part I) was examined by using a principal components analysis to determine linear relationships among 25 subdomains of the ABS (Part I). The specific program used was the FACTOR procedure of the Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) with VARIMAX rotation for simplification of the factor structure (Nie et al., 1975). These procedures allow for orthogonal rotation of uncorrelated factors. Three factors with Eigen values of 1.0 or above were identified and rotated. The variables loading at .4 level or above on these factors were maintained and used in the naming of the factors. Table 1 presents the means and standard deviations of the subdomains used in the

factor analysis. Table 2 presents the derived factors and the variables loading on each factor.

An examination of Table 2 indicates three factors emerging from the factor analytic procedure. Factor 1 was named Community Independence and agrees in most respects with the Community Self-sufficiency factor which Nihira (1976) identified as his second factor. In the present study, Factor 1 accounted for 78.2 percent of the variance. The variables which make up this factor have to do with community living, autonomy, money handling, and other such variables which reflect an individual's mobility within and integration into his/her community and his/her achievement of abilities that go beyond personal self-care needs.

Factor 2 was named Personal Independence and agrees in most respects with the Personal Self-sufficiency factor identified by Nihira (1976). Variables included in this factor involve an individual's achievement of skills in basic self-care. For the present sample, these areas are generally of less importance than the variables defining Factor 1. Factor 2 accounted for 13.4 percent of the variance.

Factor 3 was named Vocational-social Independence and contains variables involving an individual's achievement in areas concerning work-related activities and social behaviors. This factor agrees in most respects with Nihira's (1976) third factor called Personal-social Responsibility. Factor 3 accounted for 8.4 percent of the variance in the present study.

TABLE 1

Means and Standard Deviations of
ABS (Part I) Subdomains

Subdomains	Mean	SD
Eating	13.66	4.26
Toilet Use	9.18	1.67
Cleanliness	19.92	4.03
Appearance	10.65	4.26
Care of Clothing	1.82	1.57
Dressing & Undressing	11.57	3.56
Travel	1.84	1.21
General Independent Functioning	4.15	3.05
Sensory Development	5.57	.77
Motor Development	15.25	3.52
Money Handling & Budgeting	2.10	1.84
Shopping Skills	2.78	2.53
Expression	14.33	4.12
Comprehension	3.03	2.43
Social Language Development	4.76	2.37
Numbers & Time[1]	5.16	3.82
Cleaning (room)	2.46	1.82
Other Domestic Duties	2.39	1.50
Kitchen	3.97	2.42
Vocational Activity[1]	7.66	2.94
Initiative	5.23	2.71

TABLE 1 (Continued)

Subdomains	Mean	SD
Perseverance	5.36	2.46
Leisure Time	.87	.68
Responsibility[1]	3.59	1.75
Socialization[1]	16.83	5.30

[1]These are domains which are summations of individual items rather than subdomains.

TABLE 2

Factor Loadings of the ABS Part I Subdomains*

ABS Part I Subdomains	Factors 1	2	3	Communalities
Eating		.61		.66
Toilet Use		.81		.70
Cleanliness		.73		.72
Appearance		.65	.46	.64
Care of Clothing		.53	.45	.60
Dressing & Undressing		.77		.74
Travel	.53			.35
Independent Functioning	.78			.80
Sensory Development	-	-	-	.14
Motor Development		.80		.65
Money Handling & Budgeting	.79			.73
Shopping Skills	.76			.72
Expression	.72			.72
Comprehension	.86			.77
Social Language Development	.77			.77
Numbers & Time	.78			.74
Cleaning (room)	.58	.43	.47	.75
Other Domestic Duties	.40	.46	.54	.67
Kitchen Duties	.57	.54	.41	.79
Vocational Activity			.72	.61

TABLE 2 (Continued)

ABS Part I Subdomains	Factors 1	2	3	Communalities
Initiative			.82	.78
Perseverance			.77	.76
Leisure Time	.52			.33
Responsibility			.64	.70
Socialization			.74	.79
Eigen values	13.01	2.23	1.39	
% variance	78.2	13.4	8.4	

*Only loadings greater than .40 are included.

Table 2 indicates that there were several variables which loaded on more than one of the factors. Their factor loadings are presented, but they were not used in identification of the three factors. Only one variable did not load at a significant level on any factor - Sensory Development. Nihira (1976) found that it loaded on a factor only with children ages six and seven.

DISCUSSION AND IMPLICATIONS FOR PROGRAM DEVELOPMENT

As was hypothesized by Zigler (1961) and Zigler and Balla (1972), there do appear to be differences between institutionalized and community-based retarded subjects. The present study's findings indicate that community-based subjects are more interested in achievement of community-oriented tasks and skills and less interested in achievement of personal self-care tasks and skills. These results are in opposition to those obtained by Nihira (1976) using institutionalized retarded subjects. Institutionalized retarded subjects have less opportunity than community-based retarded subjects to involve themselves in community life, and many institutionalized retarded subjects lack the family support systems available to community-based retarded subjects.

Implications for the development of community-based day-treatment programs which are viable and compatible with the needs of community-based clents may be that programs should be structured to deemphasize personal self-care skills and, instead, to emphasize those skills which are community related. Since few of the clients served by the community-based programs will

actively enter the work force, except in a sheltered workshop program, the least amount of programmatic emphasis should be placed on vocationally-oriented skill attainment.

Since the present study concerned only 100 subjects in community-based programs in the State of Alabama, it is recommended that further study of the factorial composition of the ABS (Part I) be undertaken using larger and geographically wider samples.

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